

WHAT IS CLAIMED IS:

1. A system for controlling a biped robot having a body and two legs each connected to the body, comprising:

a plurality of cameras mounted on the robot and capturing a stereoscopic image  
5 around the robot;

captured image analyzer inputting and analyzing the image captured by the cameras;

moving object detector detecting presence of a moving object around the robot based on the analyzed image and if detected, calculating a position and an angle of the  
10 moving object relative to the robot;

stop motion determinator determining whether a motion of the robot needs to be stopped based on the detected position and angle of the moving object relative to the robot; and

robot motion controller controlling the robot to stop the motion when the motion  
15 of the robot is determined to be stopped, such that a distance of travel of the robot from the capture of image to the stopping of motion of the robot falls within a predetermined distance.

20 2. The system according to claim 1, wherein the robot motion controller controls the robot to stop the motion if the motion of the robot is determined to be stopped when the robot moves at its maximum speed, such that the distance of travel of the robot from the capture of image to the stopping of motion of the robot falls within the  
25 predetermined distance.

3. The system according to claim 1, wherein the moving object detector calculates a speed of the moving object relative to the robot, and the robot motion controller controls the robot to stop the motion such that the distance of travel of the  
30 robot falls within the predetermined distance, when the detected speed of the moving object relative to the robot is a predetermined value.

4. The system according to claim 3, wherein the predetermined speed is a speed determined when the robot moves at its maximum speed.

5 5. The system according to claim 1, wherein the moving object is a human being.

6. A method of controlling a biped robot having a body and two legs each connected to the body, comprising the steps of:

10 capturing a stereoscopic image around the robot;

inputting and analyzing the captured image;

detecting presence of a moving object around the robot based on the analyzed image and if detected, calculating a position and an angle of the moving object relative to the robot;

15 determining whether a motion of the robot needs to be stopped based on the detected position and angle of the moving object relative to the robot; and

controlling the robot to stop the motion when the motion of the robot is determined to be stopped, such that a distance of travel of the robot from the capture of image to the stopping of motion of the robot falls within a predetermined distance.

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7. The method according to claim 6, wherein the step of robot motion controlling controls the robot to stop the motion if the motion of the robot is determined to be stopped when the robot moves at its maximum speed, such that the distance of travel  
25 of the robot from the capture of image to the stopping of motion of the robot falls within the predetermined distance.

8. The method according to claim 6, wherein the step of moving object detection  
30 calculates a speed of the moving object relative to the robot; and the step of controlling controls the robot to stop the motion such that the distance of travel of the

robot falls within the predetermined distance, when the detected speed of the moving object relative to the robot is a predetermined value.

5           9. The method according to claim 8, wherein the predetermined speed is a speed determined when the robot moves at its maximum speed.

10         10. The method according to claim 6, wherein the moving object is a human being.